Kansas Department of Agriculture
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Plant Disease in Kansas

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HIGHLIGHTS

Wheat streak mosaic likely was the most important disease to this year's wheat crop. Rust diseases were minimal.

Hosta virus x and tobacco ring spot virus were identified in perennial plants from inspections.

Oak wilt and Dutch elm disease are active in tree stands.

Asian soybean rust continues to be found only in extreme southeastern United States. Soybeans in Kansas are not under any immediate threat from this highly publicized exotic disease.

OUTLOOK

Look for canker diseases of shade trees and needle diseases of pines to become apparent over the next month. July is always a month for brown patch in lawns but current high temperatures may limit this disease.

In row crops, leaf diseases infecting corn and soybean increase as fields begin flowering.

Perennial Plants and Turf

Figure 1: Ajuca with tobacco ring spot

Hosta virus x was again identified in several retail outlets in early June from retail lots in northeast Kansas. Hosta symptoms included mosaics, puckering of leaves, and stunted plants (KDA staff). Ajuca was identified with tobacco ring spot virus (B. Hilbert and J. Appel). Symptoms included strong ring spots and stunting.

Plants with viral symptoms were destroyed in compliance with Kansas plant health regulations.

Aster yellows of cone flower was identified in a perennial bed in Manhattan. Symptoms included witches broom, stunting, and wilting.

Figure 2: Aster yellows

In lawns, dollar spot and brown path have been active. Brown patch is more of a mid summer disease. Dollar spot is often active in late spring and early summer. Dollar spot symptoms include the typical strong brown border and hour glass lesion while brown patch lesions often do not have that strong border symptom and kill leaf tissue above the culm.

Figure 3: Hour glass and border symptoms of dollar spot on fescue.

Trees and other woody species

Dutch Elm Disease has been active for about a month in much of Kansas. American elms have been observed with symptoms across the eastern two thirds of the state. In recent travel to Wisconsin, the disease was observed in the states of Missouri, Illinois, Iowa, and Wisconsin. Symptoms included branch and tree wilting and death of trees.

Oak wilt can now be observed in red oak stands in eastern Kansas. The early heat and dry conditions have been ideal for symptom development. Trees from a distance look similar to elms infected with Dutch Elm Disease. Leaves have a pale necrosis and wilt and branches will have streaking of inner wood when infected.

Figure 4. Oak leaf with necrosis and branch with streaking in wood from oak wilt.

Ramorum blight (sudden oak death) survey of plants in retail outlets as part of the USDA national initiative was conducted in late May and early June in Kansas by KDA inspectors. Plant species such as *Pieres*, rhododendron, lilac, mountain laurel, and viburnum were observed and samples collected when symptoms were observed. No ramorum blight was identified in Kansas. One lilac sample with aerial blight symptoms was positive for *Phytophthora* species but not for the ramorum species. This was the third year that survey results have been negative in Kansas nurseries, retail outlets, and woodlands.

Wheat

The wheat harvest is nearly complete in Kansas at the time of this report with an estimated below average crop. Since the last report in early May, survey was conducted over much of the state. Wheat streak mosaic continued to be the most prolific disease. Reports were made frequently of moderate to high incidences throughout areas of central and western Kansas with an occasional field in eastern Kansas (KDA staff). Barley yellow dwarf disease was also noted in many reports and confirmed by spot check sampling and confirmation at Kansas State University Great Plains Diagnostic Center.

Leaf diseases were down this year with light incidences of both leaf and stripe rusts and no reports of black stem rust. Powdery mildew and tan spot were light to moderate and speckled leaf blotch was light.

In northwest and north central Kansas, late May surveys identified occasional fields with substantial dryland foot rot disease.

The annual Wheat Disease Loss Estimates which are a cooperative effort of USDA, KSU, and the Kansas Dept. of Agriculture will be done in late July.